Message

From: Praskins, Wayne [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=4F47BC0A2C2E42A98347D59CD1A98B19-WPRASKIN]
Sent: 11/12/2021 7:27:10 PM
To: Stoick, Paul T CIV USN NAVFAC SW SAN CA (USA) [paul.t.stoick.civ@us.navy.mil]
CC: juanita.bacey@dtsc.ca.gov; Han, Terry@CDPH [terry.han@cdph.ca.gov]; Robinson, Derek J CIV USN NAVFAC SW SAN CA (USA) [derek.j.robinson1.civ@us.navy.mil]
Subject: RE: Range of literature values described in the 2020 soil background report
Attachments: Pages from Cabrera_2004.pdf

Paul –

Thanks.

I have a few follow up questions if, as you suspect, the 0.75 pCi/g value is the decay-corrected 1.08 pCi/g maximum value from the Cabrera study:

- Can you confirm that the 1.08 pCi/g value is from the sample described in the attached page? (page 103 of my PDF of the Cabrera report). If so, I note that this sample was an "undisturbed" subsurface sample (2.2-3.5' bgs). The max Sr-90 reported for an undisturbed surface sample was slightly lower at 0.92 pCi/g.
- Can you confirm that the 1.08 pCi/g value represents Sr-90? I see in the Cabrera report that the 1.08 pCi/g result is in some places described as "total strontium."
- I note that the 1.08 pCi/g result is at the MDC (reported MDC is 1.07 pCi/g) and the uncertainty reported for the 1.08 pCi/g result is fairly high at 0.77 pCi/g.

Wayne Praskins | Superfund Project Manager
U.S. Environmental Protection Agency Region 9
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415-972-3181

From: Stoick, Paul T CIV USN NAVFAC SW SAN CA (USA) <paul.t.stoick.civ@us.navy.mil>
Sent: Friday, November 12, 2021 10:12 AM
To: Praskins, Wayne <Praskins.Wayne@epa.gov>
Cc: juanita.bacey@dtsc.ca.gov; Han, Terry@CDPH <terry.han@cdph.ca.gov>; Robinson, Derek J CIV USN NAVFAC SW SAN CA (USA) <derek.j.robinson1.civ@us.navy.mil>
Subject: RE: Range of literature values described in the 2020 soil background report

Wayne,

I'm confirming with CH2M/Jacobs, but I believe the Sr-90 upper bound was from the 2004 Cabrera Report, with a maximum concentration of 1.08 pCi/g which was decay corrected. I'll follow-up once Kim is back on Monday.

Have a good weekend!

V/r,
Paul

From: Praskins, Wayne <Praskins.Wayne@epa.gov>
Sent: Wednesday, November 10, 2021 19:17
To: Stoick, Paul T CIV USN NAVFAC SW SAN CA (USA) <paul.t.stoick.civ@us.navy.mil>
Cc: juanita.bacey@dtsc.ca.gov; Han, Terry@CDPH <terry.han@cdph.ca.gov>; Robinson, Derek J CIV USN NAVFAC SW

SAN CA (USA) <derek.j.robinson1.civ@us.navy.mil>
Subject: [Non-DoD Source] Range of literature values described in the 2020 soil background report

Paul –

The June 2020 FINAL BACKGROUND SOIL STUDY REPORT includes a table (Table 7-2) which provides a "range of literature values" for six HPNS radionuclides of concern in "background soil" in the United States." The reported range for strontium-90 in soil is 0.069 – 0.75 pCi/g. A footnote to the table lists eight reports as sources of information for the reported range of literature values.

The report indicates that the ranges were informed by a "review of analytical results of ROCs and NORM constituents, analytical methods, soil lithology, and geographic latitude," but does not explain which data from the eight studies were used to develop the reported ranges. I note that the most recent of the cited studies, a 2011 report on sampling of background areas near the Santa Susana Field Laboratory in southern California, reports surficial Sr-90 soil background concentrations ranging from non-detect to 0.084 pCi/g.

Can you provide additional information on the basis for the range of literature values reported in the HPNS background report for strontium-90 in soil? Thanks.

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